

SEQUENCE LISTING

<110> KEITH, TIM
 LITTLE, RANDALL
 VAN EERDEWEGH, PAUL
 DUPUIS, JOSEE
 DEL MASTRO, RICHARD
 SIMON, JASON
 ALLEN, KRISTINA
 PANDIT, SUNIL

<120> ANTIBODIES AND COMPOSITIONS TO A RESPIRATORY DISEASE AND OBESITY
 RELATED PROTEIN

<130> 2976-4039US3

<140> 10/670,184
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<150> 09/548,797
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Leu Leu Leu Leu Leu Leu Trp Pro Val Pro Gly Ala Gly Val Leu Gln	
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gga cat atc cct ggg cag cca gtc acc ccg cac tgg gtc ctg gat gga	144
Gly His Ile Pro Gly Gln Pro Val Thr Pro His Trp Val Leu Asp Gly	
35 40 45	
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Gln Pro Trp Arg Thr Val Ser Leu Glu Glu Pro Val Ser Lys Pro Asp	
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Met Gly Leu Val Ala Leu Glu Ala Glu Gly Gln Glu Leu Leu Leu Glu	
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ctg gag aag aac cac agg ctg ctg gcc cca gga tac ata gaa acc cac	288
Leu Glu Lys Asn His Arg Leu Leu Ala Pro Gly Tyr Ile Glu Thr His	
85 90 95	
tac ggc cca gat ggg cag cca gtg gtg ctg gcc ccc aac cac acg gat	336
Tyr Gly Pro Asp Gly Gln Pro Val Val Leu Ala Pro Asn His Thr Asp	

new sequence listing.txt

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gtc	ctc	tgc	acc	tgc	tct	ggg	atg	agt	ggc	ctg	atc	acc	ctc	agc	agg	432				
Val	Leu	Cys	Thr	Cys	Ser	Gly	Met	Ser	Gly	Leu	Ile	Thr	Leu	Ser	Arg					
	130					135					140									
aat	gcc	agc	tat	tat	ctg	cgt	ccc	tgg	cca	ccc	cgg	ggc	tcc	aag	gac	480				
Asn	Ala	Ser	Tyr	Tyr	Leu	Arg	Pro	Trp	Pro	Pro	Arg	Gly	Ser	Lys	Asp					
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Phe	Ser	Thr	His	Glu	Ile	Phe	Arg	Met	Glu	Gln	Leu	Leu	Thr	Trp	Lys					
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gga	acc	tgt	ggc	cac	agg	gat	cct	ggg	aac	aaa	gcg	ggc	atg	acc	agc	576				
Gly	Thr	Cys	Gly	His	Arg	Asp	Pro	Gly	Asn	Lys	Ala	Gly	Met	Thr	Ser					
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ctt	cct	ggt	ggt	ccc	cag	agc	agg	ggc	agg	cga	gaa	gcg	cgc	agg	acc	624				
Leu	Pro	Gly	Gly	Pro	Gln	Ser	Arg	Gly	Arg	Arg	Glu	Ala	Arg	Arg	Thr					
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cgg	aag	tac	ctg	gaa	ctg	tac	att	gtg	gca	gac	cac	acc	ctg	ttc	ttg	672				
Arg	Lys	Tyr	Leu	Glu	Leu	Tyr	Ile	Val	Ala	Asp	His	Thr	Leu	Phe	Leu					
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Thr	Arg	His	Arg	Asn	Leu	Asn	His	Thr	Lys	Gln	Arg	Leu	Leu	Glu	Val					
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gcc	aac	tac	gtg	gac	cag	ctt	ctc	agg	act	ctg	gac	att	cag	gtg	gcg	768				
Ala	Asn	Tyr	Val	Asp	Gln	Leu	Leu	Arg	Thr	Leu	Asp	Ile	Gln	Val	Ala					
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cag	gac	gcc	aac	gcc	acg	ctc	tgg	gcc	ttc	ctg	cag	tgg	cgc	cgg	ggg	864				
Gln	Asp	Ala	Asn	Ala	Thr	Leu	Trp	Ala	Phe	Leu	Gln	Trp	Arg	Arg	Gly					
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new sequence listing.txt

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Gly Gly Ala Cys Leu Ser Asn Ala Pro Asp Pro Gly Leu Pro Val Pro	
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Pro Ala Leu Cys Gly Asn Gly Phe Val Glu Ala Gly Glu Glu Cys Asp	
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Cys Gly Pro Gly Gln Glu Cys Arg Asp Leu Cys Cys Phe Ala His Asn	
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Cys Ser Leu Arg Pro Gly Ala Gln Cys Ala His Gly Asp Cys Cys Val	
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Arg Cys Leu Leu Lys Pro Ala Gly Ala Leu Cys Arg Gln Ala Met Gly	
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Pro Asp Val Tyr Leu Leu Asp Gly Ser Pro Cys Ala Arg Gly Ser Gly	
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Gly Thr Gln Cys Gly Pro Arg Met Val Cys Gln Ser Arg Arg Cys Arg	
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aag aat gcc ttc cag gag ctt cag cgc tgc ctg act gcc tgc cac agc	1776
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His Gly Val Cys Asn Ser Asn His Asn Cys His Cys Ala Pro Gly Trp	
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cta cta ctg ctg ctg ctc tgg cca gtg cca ggc gcc ggg gtg ctt caa				96
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Gly His Ile Pro Gly Gln Pro Val Thr Pro His Trp Val Leu Asp Gly	
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Gln Pro Trp Arg Thr Val Ser Leu Glu Glu Pro Val Ser Lys Pro Asp	
50 55 60	
atg ggg ctg gtg gcc ctg gag gct gaa ggc cag gag ctc ctg ctt gag	240
Met Gly Leu Val Ala Leu Glu Ala Glu Gly Gln Glu Leu Leu Leu Glu	
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Leu Glu Lys Asn His Arg Leu Leu Ala Pro Gly Tyr Ile Glu Thr His	
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tac ggc cca gat ggg cag cca gtg gtg ctg gcc ccc aac cac acg gat	336
Tyr Gly Pro Asp Gly Gln Pro Val Val Leu Ala Pro Asn His Thr Asp	
100 105 110	
cat tgc cac tac caa ggg cga gta agg ggc ttc ccc gac tcc tgg gta	384
His Cys His Tyr Gln Gly Arg Val Arg Gly Phe Pro Asp Ser Trp Val	
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gtc ctc tgc acc tgc tct ggg atg agt ggc ctg atc acc ctc agc agg	432
Val Leu Cys Thr Cys Ser Gly Met Ser Gly Leu Ile Thr Leu Ser Arg	
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Asn Ala Ser Tyr Tyr Leu Arg Pro Trp Pro Pro Arg Gly Ser Lys Asp	
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Phe Ser Thr His Glu Ile Phe Arg Met Glu Gln Leu Leu Thr Trp Lys	
165 170 175	
gga acc tgt ggc cac agg gat cct ggg aac aaa gcg ggc atg acc agc	576
Gly Thr Cys Gly His Arg Asp Pro Gly Asn Lys Ala Gly Met Thr Ser	
180 185 190	
ctt cct ggt ggt ccc cag agc agg ggc agg cga gaa gcg cgc agg acc	624
Leu Pro Gly Gly Pro Gln Ser Arg Gly Arg Arg Glu Ala Arg Arg Thr	
195 200 205	
cgg aag tac ctg gaa ctg tac att gtg gca gac cac acc ctg ttc ttg	672
Arg Lys Tyr Leu Glu Leu Tyr Ile Val Ala Asp His Thr Leu Phe Leu	
210 215 220	
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Thr Arg His Arg Asn Leu Asn His Thr Lys Gln Arg Leu Leu Glu Val	
225 230 235 240	
gcc aac tac gtg gac cag ctt ctc agg act ctg gac att cag gtg gcg	768
Ala Asn Tyr Val Asp Gln Leu Leu Arg Thr Leu Asp Ile Gln Val Ala	
245 250 255	
ctg acc ggc ctg gag gtg tgg acc gag cgg gac cgc agc cgc gtc acg	816
Leu Thr Gly Leu Glu Val Trp Thr Glu Arg Asp Arg Ser Arg Val Thr	
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cag gac gcc aac gcc acg ctc tgg gcc ttc ctg cag tgg cgc cgg ggg	864
Gln Asp Ala Asn Ala Thr Leu Trp Ala Phe Leu Gln Trp Arg Arg Gly	
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new sequence listing.txt

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cgc	gcc	gag	agc	tcg	gga	ggc	gtg	agc	acg	gac	cac	tcg	gag	ctc	ccc	1008
Arg	Ala	Glu	Ser	Ser	Gly	Gly	Val	Ser	Thr	Asp	His	Ser	Glu	Leu	Pro	
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Ile	Gly	Ala	Ala	Ala	Thr	Met	Ala	His	Glu	Ile	Gly	His	Ser	Leu	Gly	
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ctc	agc	cac	gac	ccc	gac	ggc	tgc	tgc	gtg	gag	gct	gcg	gcc	gag	tcc	1104
Leu	Ser	His	Asp	Pro	Asp	Gly	Cys	Cys	Val	Glu	Ala	Ala	Ala	Glu	Ser	
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gga	ggc	tgc	gtc	atg	gct	gcg	gcc	acc	ggg	cac	ccg	ttt	ccg	cgc	gtg	1152
Gly	Gly	Cys	Val	Met	Ala	Ala	Ala	Thr	Gly	His	Pro	Phe	Pro	Arg	Val	
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ttc	agc	gcc	tgc	agc	cgc	cgc	cag	ctg	cgc	gcc	ttc	ttc	cgc	aag	ggg	1200
Phe	Ser	Ala	Cys	Ser	Arg	Arg	Gln	Leu	Arg	Ala	Phe	Phe	Arg	Lys	Gly	
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ccg	gcg	ctc	tgc	ggg	aac	ggc	ttc	gtg	gaa	gcg	ggc	gag	gag	tgt	gac	1296
Pro	Ala	Leu	Cys	Gly	Asn	Gly	Phe	Val	Glu	Ala	Gly	Glu	Glu	Cys	Asp	
				420					425						430	
tgc	ggc	cct	ggc	cag	gag	tgc	cgc	gac	ctc	tgc	tgc	ttt	gct	cac	aac	1344
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Cys	Ser	Leu	Arg	Pro	Gly	Ala	Gln	Cys	Ala	His	Gly	Asp	Cys	Cys	Val	
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cgc	tgc	ctg	ctg	aag	ccg	gct	gga	gcg	ctg	tgc	cgc	cag	gcc	atg	ggc	1440
Arg	Cys	Leu	Leu	Lys	Pro	Ala	Gly	Ala	Leu	Cys	Arg	Gln	Ala	Met	Gly	
465					470					475					480	
gac	tgt	gac	ctc	cct	gag	ttt	tgc	acg	ggc	acc	tcc	tcc	cac	tgt	ccc	1488
Asp	Cys	Asp	Leu	Pro	Glu	Phe	Cys	Thr	Gly	Thr	Ser	Ser	His	Cys	Pro	
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cca	gac	gtt	tac	cta	ctg	gac	ggc	tca	ccc	tgt	gcc	agg	ggc	agt	ggc	1536
Pro	Asp	Val	Tyr	Leu	Leu	Asp	Gly	Ser	Pro	Cys	Ala	Arg	Gly	Ser	Gly	
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tac	tgc	tgg	gat	ggc	gca	tgt	ccc	acg	ctg	gag	cag	cag	tgc	cag	cag	1584
Tyr	Cys	Trp	Asp	Gly	Ala	Cys	Pro	Thr	Leu	Glu	Gln	Gln	Cys	Gln	Gln	
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ctc	tgg	ggg	cct	ggc	tcc	cac	cca	gct	ccc	gag	gcc	tgt	ttc	cag	gtg	1632
Leu	Trp	Gly	Pro	Gly	Ser	His	Pro	Ala	Pro	Glu	Ala	Cys	Phe	Gln	Val	
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gtg	aac	tct	gcg	gga	gat	gct	cat	gga	aac	tgc	ggc	cag	gac	agc	gag	1680
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new sequence listing.txt

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Gln Cys Gln Gly Lys Pro Ser Leu Ala Pro His Met Val Pro	
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Val Asp Ser Thr Val His Leu Asp Gly Gln Glu Val Thr Cys Arg Gly	
595 600 605	
gcc ttg gca ctc ccc agt gcc cag ctg gac ctg ctt ggc ctg ggc ctg	1872
Ala Leu Ala Leu Pro Ser Ala Gln Leu Asp Leu Leu Gly Leu Gly Leu	
610 615 620	
gta gag cca ggc acc cag tgt gga cct aga atg gtt tgc aat agc aac	1920
Val Glu Pro Gly Thr Gln Cys Gly Pro Arg Met Val Cys Asn Ser Asn	
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His Asn Cys His Cys Ala Pro Gly Trp Ala Pro Pro Phe Cys Asp Lys	
645 650 655	
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Pro Gly Phe Gly Gly Ser Met Asp Ser Gly Pro Val Gln Ala Glu Asn	
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His Asp Thr Phe Leu Leu Ala Met Leu Leu Ser Val Leu Leu Pro Leu	
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Leu Pro Gly Ala Gly Leu Ala Trp Cys Cys Tyr Arg Leu Pro Gly Ala	
690 695 700	
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His Leu Gln Arg Cys Ser Trp Gly Cys Arg Arg Asp Pro Ala Cys Ser	
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ggc ccc aaa gat ggc cca cac agg gac cac ccc ctg ggc ggc gtt cac	2208
Gly Pro Lys Asp Gly Pro His Arg Asp His Pro Leu Gly Gly Val His	
725 730 735	
ccc atg gag ttg ggc ccc aca gcc act gga cag ccc tgg ccc ctg gac	2256
Pro Met Glu Leu Gly Pro Thr Ala Thr Gly Gln Pro Trp Pro Leu Asp	
740 745 750	
cct gag aac tct cat gag ccc agc agc cac cct gag aag cct ctg cca	2304
Pro Glu Asn Ser His Glu Pro Ser Ser His Pro Glu Lys Pro Leu Pro	
755 760 765	
gca gtc tcg cct gac ccc caa gca gat caa gtc cag atg cca aga tcc	2352
Ala Val Ser Pro Asp Pro Gln Ala Asp Gln Val Gln Met Pro Arg Ser	
770 775 780	
tgc ctc tgg tga gaggtagctc ctaaaatgaa cagatttaaa gacaggtggc	2404
Cys Leu Trp	
785	
cactgacagc cactccagga acttgaactg caggggcaga gccagtgaat caccggacct	2464
ccagcacctg caggcagctt ggaagtttct tccccgagtg gagcttcgac ccaccactc	2524
caggaaccca gagccacatt agaagttcct gagggctgga gaacactgct gggcacactc	2584
tccagctcaa taaaccatca gtcccagaag caaaggtcac acagcccctg acctccctca	2644
ccagtggagg ctgggtagtg ctggccatcc caaaagggct ctgtcctggg agtctggtgt	2704

new sequence listing.txt

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gtctcctaca tgcaatttcc acggacccag ctctgtggag ggcattgactg ctggccagaa 2764
gctagtgggtc ctggggccct atgggttcgac tgagtccaca ctcccctgca gcctggctgg 2824
cctctgcaaaa caaacataat tttggggacc ttccttcctg tttcttccca ccctgtcttc 2884
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atcacttgag cctgagttca acactgcagt gagctatggt ggcaccactg cactccagcc 3304
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cta cta ctg ctg ctg ctc tgg cca gtg cca ggc gcc ggg gtg ctt caa 96
Leu Leu Leu Leu Leu Leu Trp Pro Val Pro Gly Ala Gly Val Leu Gln
             20             25             30

ggt gag gac gcg ggc ggg gtc ccc ctc acc ctg tgc tct gtc ttt act 144
Gly Glu Asp Ala Gly Gly Val Pro Leu Thr Leu Cys Ser Val Phe Thr
             35             40             45

cca gga cat atc cct ggg cag cca gtc acc ccg cac tgg gtc ctg gat 192
Pro Gly His Ile Pro Gly Gln Pro Val Thr Pro His Trp Val Leu Asp
             50             55             60

gga caa ccc tgg cgc acc gtc agc ctg gag gag ccg gtc tcg aag cca 240
Gly Gln Pro Trp Arg Thr Val Ser Leu Glu Glu Pro Val Ser Lys Pro
             65             70             75             80

gac atg ggg ctg gtg gcc ctg gag gct gaa ggc cag gag ctc ctg ctt 288
Asp Met Gly Leu Val Ala Leu Glu Ala Glu Gly Gln Glu Leu Leu Leu
             85             90             95

gag ctg gag aag aac cac agg ctg ctg gcc cca gga tac ata gaa acc 336
Glu Leu Glu Lys Asn His Arg Leu Leu Ala Pro Gly Tyr Ile Glu Thr
             100            105            110

cac tac ggc cca gat ggg cag cca gtg gtg ctg gcc ccc aac cac acg 384
His Tyr Gly Pro Asp Gly Gln Pro Val Val Leu Ala Pro Asn His Thr
             115            120            125

gat cat tgc cac tac caa ggg cga gta agg ggc ttc ccc gac tcc tgg 432
Asp His Cys His Tyr Gln Gly Arg Val Arg Gly Phe Pro Asp Ser Trp
             130            135            140

gta gtc ctc tgc acc tgc tct ggg atg agt ggc ctg atc acc ctc agc 480
Val Val Leu Cys Thr Cys Ser Gly Met Ser Gly Leu Ile Thr Leu Ser
             145            150            155            160

agg aat gcc agc tat tat ctg cgt ccc tgg cca ccc cgg ggc tcc aag 528
Arg Asn Ala Ser Tyr Tyr Leu Arg Pro Trp Pro Pro Arg Gly Ser Lys

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new sequence listing.txt

165				170				175								
gac	ttc	tca	acc	cac	gag	atc	ttt	cgg	atg	gag	cag	ctg	ctc	acc	tgg	576
Asp	Phe	Ser	Thr	His	Glu	Ile	Phe	Arg	Met	Glu	Gln	Leu	Leu	Thr	Trp	
			180						185				190			
aaa	gga	acc	tgt	ggc	cac	agg	gat	cct	ggg	aac	aaa	gcg	ggc	atg	acc	624
Lys	Gly	Thr	Cys	Gly	His	Arg	Asp	Pro	Gly	Asn	Lys	Ala	Gly	Met	Thr	
			195				200						205			
agc	ctt	cct	ggt	ggt	ccc	cag	agc	agg	ggc	agg	cga	gaa	gcg	cgc	agg	672
Ser	Leu	Pro	Gly	Gly	Pro	Gln	Ser	Arg	Gly	Arg	Arg	Glu	Ala	Arg	Arg	
			210			215					220					
acc	cgg	aag	tac	ctg	gaa	ctg	tac	att	gtg	gca	gac	cac	acc	ctg	ttc	720
Thr	Arg	Lys	Tyr	Leu	Glu	Leu	Tyr	Ile	Val	Ala	Asp	His	Thr	Leu	Phe	
					230					235					240	
ttg	act	cgg	cac	cga	aac	ttg	aac	cac	acc	aaa	cag	cgt	ctc	ctg	gaa	768
Leu	Thr	Arg	His	Arg	Asn	Leu	Asn	His	Thr	Lys	Gln	Arg	Leu	Leu	Glu	
			245						250					255		
gtc	gcc	aac	tac	gtg	gac	cag	ctt	ctc	agg	act	ctg	gac	att	cag	gtg	816
Val	Ala	Asn	Tyr	Val	Asp	Gln	Leu	Leu	Arg	Thr	Leu	Asp	Ile	Gln	Val	
			260						265				270			
gcg	ctg	acc	ggc	ctg	gag	gtg	tgg	acc	gag	cgg	gac	cgc	agc	cgc	gtc	864
Ala	Leu	Thr	Gly	Leu	Glu	Val	Trp	Thr	Glu	Arg	Asp	Arg	Ser	Arg	Val	
			275				280				285					
acg	cag	gac	gcc	aac	gcc	acg	ctc	tgg	gcc	ttc	ctg	cag	tgg	cgc	cgg	912
Thr	Gln	Asp	Ala	Asn	Ala	Thr	Leu	Trp	Ala	Phe	Leu	Gln	Trp	Arg	Arg	
			290			295					300					
ggg	ctg	tgg	gcg	cag	cgg	ccc	cac	gac	tcc	gcg	cag	ctg	ctc	acg	ggc	960
Gly	Leu	Trp	Ala	Gln	Arg	Pro	His	Asp	Ser	Ala	Gln	Leu	Leu	Thr	Gly	
					310					315					320	
cgc	gcc	ttc	cag	ggc	gcc	aca	gtg	ggc	ctg	gcg	ccc	gtc	gag	ggc	atg	1008
Arg	Ala	Phe	Gln	Gly	Ala	Thr	Val	Gly	Leu	Ala	Pro	Val	Glu	Gly	Met	
					325				330					335		
tgc	cgc	gcc	gag	agc	tcg	gga	ggc	gtg	agc	acg	gac	cac	tcg	gag	ctc	1056
Cys	Arg	Ala	Glu	Ser	Ser	Gly	Gly	Val	Ser	Thr	Asp	His	Ser	Glu	Leu	
			340						345				350			
ccc	atc	ggc	gcc	gca	gcc	acc	atg	gcc	cat	gag	atc	ggc	cac	agc	ctc	1104
Pro	Ile	Gly	Ala	Ala	Ala	Thr	Met	Ala	His	Glu	Ile	Gly	His	Ser	Leu	
			355				360						365			
ggc	ctc	agc	cac	gac	ccc	gac	ggc	tgc	tgc	gtg	gag	gct	gcg	gcc	gag	1152
Gly	Leu	Ser	His	Asp	Pro	Asp	Gly	Cys	Cys	Val	Glu	Ala	Ala	Ala	Glu	
			370			375					380					
tcc	gga	ggc	tgc	gtc	atg	gct	gcg	gcc	acc	ggg	cac	ccg	ttt	ccg	cgc	1200
Ser	Gly	Gly	Cys	Val	Met	Ala	Ala	Ala	Thr	Gly	His	Pro	Phe	Pro	Arg	
					390					395					400	
gtg	ttc	agc	gcc	tgc	agc	cgc	cgc	cag	ctg	cgc	gcc	ttc	ttc	cgc	aag	1248
Val	Phe	Ser	Ala	Cys	Ser	Arg	Arg	Gln	Leu	Arg	Ala	Phe	Phe	Arg	Lys	
					405				410					415		
ggg	ggc	ggc	gct	tgc	ctc	tcc	aat	gcc	ccg	gac	ccc	gga	ctc	ccg	gtg	1296
Gly	Gly	Gly	Ala	Cys	Leu	Ser	Asn	Ala	Pro	Asp	Pro	Gly	Leu	Pro	Val	
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new sequence listing.txt

ccg ccg gcg ctc tgc ggg aac ggc ttc gtg gaa gcg ggc gag gag tgt	1344
Pro Pro Ala Leu Cys Gly Asn Gly Phe Val Glu Ala Gly Glu Glu Cys	
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gac tgc ggc cct ggc cag gag tgc cgc gac ctc tgc tgc ttt gct cac	1392
Asp Cys Gly Pro Gly Gln Glu Cys Arg Asp Leu Cys Cys Phe Ala His	
450 455 460	
aac tgc tcg ctg cgc ccg ggg gcc cag tgc gcc cac ggg gac tgc tgc	1440
Asn Cys Ser Leu Arg Pro Gly Ala Gln Cys Ala His Gly Asp Cys Cys	
465 470 475 480	
gtg cgc tgc ctg ctg aag ccg gct gga gcg ctg tgc cgc cag gcc atg	1488
Val Arg Cys Leu Leu Lys Pro Ala Gly Ala Leu Cys Arg Gln Ala Met	
485 490 495	
ggg gac tgt gac ctc cct gag ttt tgc acg ggc acc tcc tcc cac tgt	1536
Gly Asp Cys Asp Leu Pro Glu Phe Cys Thr Gly Thr Ser Ser His Cys	
500 505 510	
ccc cca gac gtt tac cta ctg gac ggc tca ccc tgt gcc agg ggc agt	1584
Pro Pro Asp Val Tyr Leu Leu Asp Gly Ser Pro Cys Ala Arg Gly Ser	
515 520 525	
ggc tac tgc tgg gat ggc gca tgt ccc acg ctg gag cag cag tgc cag	1632
Gly Tyr Cys Trp Asp Gly Ala Cys Pro Thr Leu Glu Gln Gln Cys Gln	
530 535 540	
cag ctc tgg ggg cct ggc tcc cac cca gct ccc gag gcc tgt ttc cag	1680
Gln Leu Trp Gly Pro Gly Ser His Pro Ala Pro Glu Ala Cys Phe Gln	
545 550 555 560	
gtg gtg aac tct gcg gga gat gct cat gga aac tgc ggc cag gac agc	1728
Val Val Asn Ser Ala Gly Asp Ala His Gly Asn Cys Gly Gln Asp Ser	
565 570 575	
gag ggc cac ttc ctg ccc tgt gca ggg agg gat gcc ctg tgt ggg aag	1776
Glu Gly His Phe Leu Pro Cys Ala Gly Arg Asp Ala Leu Cys Gly Lys	
580 585 590	
ctg cag tgc cag ggt gga aag ccc agc ctg ctc gca ccg cac atg gtg	1824
Leu Gln Cys Gln Gly Gly Lys Pro Ser Leu Leu Ala Pro His Met Val	
595 600 605	
cca gtg gac tct acc gtt cac cta gat ggc cag gaa gtg act tgt cgg	1872
Pro Val Asp Ser Thr Val His Leu Asp Gly Gln Glu Val Thr Cys Arg	
610 615 620	
gga gcc ttg gca ctc ccc agt gcc cag ctg gac ctg ctt ggc ctg ggc	1920
Gly Ala Leu Ala Leu Pro Ser Ala Gln Leu Asp Leu Leu Gly Leu Gly	
625 630 635 640	
ctg gta gag cca ggc acc cag tgt gga cct aga atg gtg tgc cag agc	1968
Leu Val Glu Pro Gly Thr Gln Cys Gly Pro Arg Met Val Cys Gln Ser	
645 650 655	
agg cgc tgc agg aag aat gcc ttc cag gag ctt cag cgc tgc ctg act	2016
Arg Arg Cys Arg Lys Asn Ala Phe Gln Glu Leu Gln Arg Cys Leu Thr	
660 665 670	
gcc tgc cac agc cac ggg gtt tgc aat agc aac cat aac tgc cac tgt	2064
Ala Cys His Ser His Gly Val Cys Asn Ser Asn His Asn Cys His Cys	
675 680 685	
gct cca ggc tgg gct cca ccc ttc tgt gac aag cca ggc ttt ggt ggc	2112
Ala Pro Gly Trp Ala Pro Pro Phe Cys Asp Lys Pro Gly Phe Gly Gly	

new sequence listing.txt

690	695	700	
agc atg gac agt ggc cct gtg cag gct gaa aac cat gac acc ttc ctg			2160
Ser Met Asp Ser Gly Pro Val Gln Ala Glu Asn His Asp Thr Phe Leu			
705	710	715	720
ctg gcc atg ctc ctc agc gtc ctg ctg cct ctg ctc cca ggg gcc ggc			2208
Leu Ala Met Leu Leu Ser Val Leu Leu Pro Leu Leu Pro Gly Ala Gly			
	725	730	735
ctg gcc tgg tgt tgc tac cga ctc cca gga gcc cat ctg cag cga tgc			2256
Leu Ala Trp Cys Cys Tyr Arg Leu Pro Gly Ala His Leu Gln Arg Cys			
	740	745	750
agc tgg ggc tgc aga agg gac cct gcg tgc agt ggc ccc aaa gat ggc			2304
Ser Trp Gly Cys Arg Arg Asp Pro Ala Cys Ser Gly Pro Lys Asp Gly			
	755	760	765
cca cac agg gac cac ccc ctg ggc ggc gtt cac ccc atg gag ttg ggc			2352
Pro His Arg Asp His Pro Leu Gly Gly Val His Pro Met Glu Leu Gly			
	770	775	780
ccc aca gcc act gga cag ccc tgg ccc ctg gcc cca ggg tct cct gct			2400
Pro Thr Ala Thr Gly Gln Pro Trp Pro Leu Ala Pro Gly Ser Pro Ala			
785	790	795	800
gac cat att cac aac att tac cct cca cca ttt ctc cca gac cct gag			2448
Asp His Ile His Asn Ile Tyr Pro Pro Phe Leu Pro Asp Pro Glu			
	805	810	815
aac tct cat gag ccc agc agc cac cct gag aag cct ctg cca gca gtc			2496
Asn Ser His Glu Pro Ser Ser His Pro Glu Lys Pro Leu Pro Ala Val			
	820	825	830
tcg cct gac ccc caa gca gat caa gtc cag atg cca aga tcc tgc ctc			2544
Ser Pro Asp Pro Gln Ala Asp Gln Val Gln Met Pro Arg Ser Cys Leu			
	835	840	845
tgg tga gaggtagctc ctaaaatgaa cagatttaaa gacaggtggc cactgacagc			2600
Trp			
cactccagga acttgaactg caggggcaga gccagtgaat caccggacct ccagcacctg			2660
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gagccacact agaagttcct gagggctgga gaacactgct gggcacactc tccagctcaa			2780
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aaaaaaaaaa aaaaaaaaaa aa			3582
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new sequence listing.txt

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1				5					10					15		
Leu	Leu	Leu	Leu	Leu	Leu	Trp	Pro	Val	Pro	Gly	Ala	Gly	Val	Leu	Gln	
			20					25					30			
Gly	His	Ile	Pro	Gly	Gln	Pro	Val	Thr	Pro	His	Trp	Val	Leu	Asp	Gly	
		35					40					45				
Gln	Pro	Trp	Arg	Thr	Val	Ser	Leu	Glu	Glu	Pro	Val	Ser	Lys	Pro	Asp	
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Met	Gly	Leu	Val	Ala	Leu	Glu	Ala	Glu	Gly	Gln	Glu	Leu	Leu	Leu	Glu	
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Leu	Glu	Lys	Asn	His	Arg	Leu	Leu	Ala	Pro	Gly	Tyr	Ile	Glu	Thr	His	
				85					90					95		
Tyr	Gly	Pro	Asp	Gly	Gln	Pro	Val	Val	Leu	Ala	Pro	Asn	His	Thr	Asp	
			100					105					110			
His	Cys	His	Tyr	Gln	Gly	Arg	Val	Arg	Gly	Phe	Pro	Asp	Ser	Trp	Val	
		115					120					125				
Val	Leu	Cys	Thr	Cys	Ser	Gly	Met	Ser	Gly	Leu	Ile	Thr	Leu	Ser	Arg	
	130					135					140					
Asn	Ala	Ser	Tyr	Tyr	Leu	Arg	Pro	Trp	Pro	Pro	Arg	Gly	Ser	Lys	Asp	
145					150					155					160	
Phe	Ser	Thr	His	Glu	Ile	Phe	Arg	Met	Glu	Gln	Leu	Leu	Thr	Trp	Lys	
				165					170					175		
Gly	Thr	Cys	Gly	His	Arg	Asp	Pro	Gly	Asn	Lys	Ala	Gly	Met	Thr	Ser	
			180					185					190			
Leu	Pro	Gly	Gly	Pro	Gln	Ser	Arg	Gly	Arg	Arg	Glu	Ala	Arg	Arg	Thr	
		195					200					205				
Arg	Lys	Tyr	Leu	Glu	Leu	Tyr	Ile	Val	Ala	Asp	His	Thr	Leu	Phe	Leu	
	210					215					220					
Thr	Arg	His	Arg	Asn	Leu	Asn	His	Thr	Lys	Gln	Arg	Leu	Leu	Glu	Val	
225					230					235					240	
Ala	Asn	Tyr	Val	Asp	Gln	Leu	Leu	Arg	Thr	Leu	Asp	Ile	Gln	Val	Ala	
				245					250					255		
Leu	Thr	Gly	Leu	Glu	Val	Trp	Thr	Glu	Arg	Asp	Arg	Ser	Arg	Val	Thr	
			260					265					270			
Gln	Asp	Ala	Asn	Ala	Thr	Leu	Trp	Ala	Phe	Leu	Gln	Trp	Arg	Arg	Gly	
		275					280					285				
Leu	Trp	Ala	Gln	Arg	Pro	His	Asp	Ser	Ala	Gln	Leu	Leu	Thr	Gly	Arg	
	290					295					300					
Ala	Phe	Gln	Gly	Ala	Thr	Val	Gly	Leu	Ala	Pro	Val	Glu	Gly	Met	Cys	
305					310					315					320	
Arg	Ala	Glu	Ser	Ser	Gly	Gly	Val	Ser	Thr	Asp	His	Ser	Glu	Leu	Pro	
				325					330					335		
Ile	Gly	Ala	Ala	Ala	Thr	Met	Ala	His	Glu	Ile	Gly	His	Ser	Leu	Gly	
			340					345					350			

new sequence listing.txt

Leu	Ser	His	Asp	Pro	Asp	Gly	Cys	Cys	Val	Glu	Ala	Ala	Ala	Glu	Ser	355	360	365
Gly	Gly	Cys	Val	Met	Ala	Ala	Ala	Thr	Gly	His	Pro	Phe	Pro	Arg	Val	370	375	380
Phe	Ser	Ala	Cys	Ser	Arg	Arg	Gln	Leu	Arg	Ala	Phe	Phe	Arg	Lys	Gly	385	390	400
Gly	Gly	Ala	Cys	Leu	Ser	Asn	Ala	Pro	Asp	Pro	Gly	Leu	Pro	Val	Pro	405	410	415
Pro	Ala	Leu	Cys	Gly	Asn	Gly	Phe	Val	Glu	Ala	Gly	Glu	Glu	Cys	Asp	420	425	430
Cys	Gly	Pro	Gly	Gln	Glu	Cys	Arg	Asp	Leu	Cys	Cys	Phe	Ala	His	Asn	435	440	445
Cys	Ser	Leu	Arg	Pro	Gly	Ala	Gln	Cys	Ala	His	Gly	Asp	Cys	Cys	Val	450	455	460
Arg	Cys	Leu	Leu	Lys	Pro	Ala	Gly	Ala	Leu	Cys	Arg	Gln	Ala	Met	Gly	465	470	475
Asp	Cys	Asp	Leu	Pro	Glu	Phe	Cys	Thr	Gly	Thr	Ser	Ser	His	Cys	Pro	485	490	495
Pro	Asp	Val	Tyr	Leu	Leu	Asp	Gly	Ser	Pro	Cys	Ala	Arg	Gly	Ser	Gly	500	505	510
Tyr	Cys	Trp	Asp	Gly	Ala	Cys	Pro	Thr	Leu	Glu	Gln	Gln	Cys	Gln	Gln	515	520	525
Leu	Trp	Gly	Pro	Asp	Gly	Gln	Glu	Val	Thr	Cys	Arg	Gly	Ala	Leu	Ala	530	535	540
Leu	Pro	Ser	Ala	Gln	Leu	Asp	Leu	Leu	Gly	Leu	Gly	Leu	Val	Glu	Pro	545	550	555
Gly	Thr	Gln	Cys	Gly	Pro	Arg	Met	Val	Cys	Gln	Ser	Arg	Arg	Cys	Arg	565	570	575
Lys	Asn	Ala	Phe	Gln	Glu	Leu	Gln	Arg	Cys	Leu	Thr	Ala	Cys	His	Ser	580	585	590
His	Gly	Val	Cys	Asn	Ser	Asn	His	Asn	Cys	His	Cys	Ala	Pro	Gly	Trp	595	600	605
Ala	Pro	Pro	Phe	Cys	Asp	Lys	Pro	Gly	Phe	Gly	Gly	Ser	Met	Asp	Ser	610	615	620
Gly	Pro	Val	Gln	Ala	Glu	Asn	His	Asp	Thr	Phe	Leu	Leu	Ala	Met	Leu	625	630	635
Leu	Ser	Val	Leu	Leu	Pro	Leu	Leu	Pro	Gly	Ala	Gly	Leu	Ala	Trp	Cys	645	650	655
Cys	Tyr	Arg	Leu	Pro	Gly	Ala	His	Leu	Gln	Arg	Cys	Ser	Trp	Gly	Cys	660	665	670
Arg	Arg	Asp	Pro	Ala	Cys	Ser	Gly	Pro	Lys	Asp	Gly	Pro	His	Arg	Asp	675	680	685
His	Pro	Leu	Gly	Gly	Val	His	Pro	Met	Glu	Leu	Gly	Pro	Thr	Ala	Thr	690	695	700

new sequence listing.txt

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Gly Gln Pro Trp Pro Leu Asp Pro Glu Asn Ser His Glu Pro Ser Ser
705              710              715              720

His Pro Glu Lys Pro Leu Pro Ala Val Ser Pro Asp Pro Gln Ala Asp
              725              730              735

Gln Val Gln Met Pro Arg Ser Cys Leu Trp
              740              745

<210> 5
<211> 787
<212> PRT
<213> Homo sapiens

<400> 5

Met Gly Trp Arg Pro Arg Arg Ala Arg Gly Thr Pro Leu Leu Leu Leu
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Leu Leu Leu Leu Leu Leu Trp Pro Val Pro Gly Ala Gly Val Leu Gln
              20              25              30

Gly His Ile Pro Gly Gln Pro Val Thr Pro His Trp Val Leu Asp Gly
 35              40              45

Gln Pro Trp Arg Thr Val Ser Leu Glu Glu Pro Val Ser Lys Pro Asp
 50              55              60

Met Gly Leu Val Ala Leu Glu Ala Glu Gly Gln Glu Leu Leu Leu Glu
 65              70              75              80

Leu Glu Lys Asn His Arg Leu Leu Ala Pro Gly Tyr Ile Glu Thr His
              85              90              95

Tyr Gly Pro Asp Gly Gln Pro Val Val Leu Ala Pro Asn His Thr Asp
              100              105              110

His Cys His Tyr Gln Gly Arg Val Arg Gly Phe Pro Asp Ser Trp Val
              115              120              125

Val Leu Cys Thr Cys Ser Gly Met Ser Gly Leu Ile Thr Leu Ser Arg
              130              135              140

Asn Ala Ser Tyr Tyr Leu Arg Pro Trp Pro Pro Arg Gly Ser Lys Asp
145              150              155              160

Phe Ser Thr His Glu Ile Phe Arg Met Glu Gln Leu Leu Thr Trp Lys
              165              170              175

Gly Thr Cys Gly His Arg Asp Pro Gly Asn Lys Ala Gly Met Thr Ser
              180              185              190

Leu Pro Gly Gly Pro Gln Ser Arg Gly Arg Arg Glu Ala Arg Arg Thr
              195              200              205

Arg Lys Tyr Leu Glu Leu Tyr Ile Val Ala Asp His Thr Leu Phe Leu
              210              215              220

Thr Arg His Arg Asn Leu Asn His Thr Lys Gln Arg Leu Leu Glu Val
225              230              235              240

Ala Asn Tyr Val Asp Gln Leu Leu Arg Thr Leu Asp Ile Gln Val Ala
              245              250              255

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new sequence listing.txt

Leu	Thr	Gly	Leu	Glu	Val	Trp	Thr	Glu	Arg	Asp	Arg	Ser	Arg	Val	Thr	260	265	270
Gln	Asp	Ala	Asn	Ala	Thr	Leu	Trp	Ala	Phe	Leu	Gln	Trp	Arg	Arg	Gly	275	280	285
Leu	Trp	Ala	Gln	Arg	Pro	His	Asp	Ser	Ala	Gln	Leu	Leu	Thr	Gly	Arg	290	295	300
Ala	Phe	Gln	Gly	Ala	Thr	Val	Gly	Leu	Ala	Pro	Val	Glu	Gly	Met	Cys	305	310	315
Arg	Ala	Glu	Ser	Ser	Gly	Gly	Val	Ser	Thr	Asp	His	Ser	Glu	Leu	Pro	325	330	335
Ile	Gly	Ala	Ala	Ala	Thr	Met	Ala	His	Glu	Ile	Gly	His	Ser	Leu	Gly	340	345	350
Leu	Ser	His	Asp	Pro	Asp	Gly	Cys	Cys	Val	Glu	Ala	Ala	Ala	Glu	Ser	355	360	365
Gly	Gly	Cys	Val	Met	Ala	Ala	Ala	Thr	Gly	His	Pro	Phe	Pro	Arg	Val	370	375	380
Phe	Ser	Ala	Cys	Ser	Arg	Arg	Gln	Leu	Arg	Ala	Phe	Phe	Arg	Lys	Gly	385	390	395
Gly	Gly	Ala	Cys	Leu	Ser	Asn	Ala	Pro	Asp	Pro	Gly	Leu	Pro	Val	Pro	405	410	415
Pro	Ala	Leu	Cys	Gly	Asn	Gly	Phe	Val	Glu	Ala	Gly	Glu	Glu	Cys	Asp	420	425	430
Cys	Gly	Pro	Gly	Gln	Glu	Cys	Arg	Asp	Leu	Cys	Cys	Phe	Ala	His	Asn	435	440	445
Cys	Ser	Leu	Arg	Pro	Gly	Ala	Gln	Cys	Ala	His	Gly	Asp	Cys	Cys	Val	450	455	460
Arg	Cys	Leu	Leu	Lys	Pro	Ala	Gly	Ala	Leu	Cys	Arg	Gln	Ala	Met	Gly	465	470	475
Asp	Cys	Asp	Leu	Pro	Glu	Phe	Cys	Thr	Gly	Thr	Ser	Ser	His	Cys	Pro	485	490	495
Pro	Asp	Val	Tyr	Leu	Leu	Asp	Gly	Ser	Pro	Cys	Ala	Arg	Gly	Ser	Gly	500	505	510
Tyr	Cys	Trp	Asp	Gly	Ala	Cys	Pro	Thr	Leu	Glu	Gln	Gln	Cys	Gln	Gln	515	520	525
Leu	Trp	Gly	Pro	Gly	Ser	His	Pro	Ala	Pro	Glu	Ala	Cys	Phe	Gln	Val	530	535	540
Val	Asn	Ser	Ala	Gly	Asp	Ala	His	Gly	Asn	Cys	Gly	Gln	Asp	Ser	Glu	545	550	555
Gly	His	Phe	Leu	Pro	Cys	Ala	Gly	Arg	Asp	Ala	Leu	Cys	Gly	Lys	Leu	565	570	575
Gln	Cys	Gln	Gly	Gly	Lys	Pro	Ser	Leu	Leu	Ala	Pro	His	Met	Val	Pro	580	585	590
Val	Asp	Ser	Thr	Val	His	Leu	Asp	Gly	Gln	Glu	Val	Thr	Cys	Arg	Gly	595	600	605

new sequence listing.txt

Ala Leu Ala Leu Pro Ser Ala Gln Leu Asp Leu Leu Gly Leu Gly Leu
610 615 620

Val Glu Pro Gly Thr Gln Cys Gly Pro Arg Met Val Cys Asn Ser Asn
625 630 635 640

His Asn Cys His Cys Ala Pro Gly Trp Ala Pro Pro Phe Cys Asp Lys
645 650 655

Pro Gly Phe Gly Gly Ser Met Asp Ser Gly Pro Val Gln Ala Glu Asn
660 665 670

His Asp Thr Phe Leu Leu Ala Met Leu Leu Ser Val Leu Leu Pro Leu
675 680 685

Leu Pro Gly Ala Gly Leu Ala Trp Cys Cys Tyr Arg Leu Pro Gly Ala
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His Leu Gln Arg Cys Ser Trp Gly Cys Arg Arg Asp Pro Ala Cys Ser
705 710 715 720

Gly Pro Lys Asp Gly Pro His Arg Asp His Pro Leu Gly Gly Val His
725 730 735

Pro Met Glu Leu Gly Pro Thr Ala Thr Gly Gln Pro Trp Pro Leu Asp
740 745 750

Pro Glu Asn Ser His Glu Pro Ser Ser His Pro Glu Lys Pro Leu Pro
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Ala Val Ser Pro Asp Pro Gln Ala Asp Gln Val Gln Met Pro Arg Ser
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Cys Leu Trp
785

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Pro Gly His Ile Pro Gly Gln Pro Val Thr Pro His Trp Val Leu Asp
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Gly Gln Pro Trp Arg Thr Val Ser Leu Glu Glu Pro Val Ser Lys Pro
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Asp Met Gly Leu Val Ala Leu Glu Ala Glu Gly Gln Glu Leu Leu Leu
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Glu Leu Glu Lys Asn His Arg Leu Leu Ala Pro Gly Tyr Ile Glu Thr
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His Tyr Gly Pro Asp Gly Gln Pro Val Val Leu Ala Pro Asn His Thr

new sequence listing.txt

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Asp	Phe	Ser	Thr	His	Glu	Ile	Phe	Arg	Met	Glu	Gln	Leu	Leu	Thr	Trp
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Lys	Gly	Thr	Cys	Gly	His	Arg	Asp	Pro	Gly	Asn	Lys	Ala	Gly	Met	Thr
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Leu	Thr	Arg	His	Arg	Asn	Leu	Asn	His	Thr	Lys	Gln	Arg	Leu	Leu	Glu
			245						250					255	
Val	Ala	Asn	Tyr	Val	Asp	Gln	Leu	Leu	Arg	Thr	Leu	Asp	Ile	Gln	Val
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Ala	Leu	Thr	Gly	Leu	Glu	Val	Trp	Thr	Glu	Arg	Asp	Arg	Ser	Arg	Val
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	290					295					300				
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Arg	Ala	Phe	Gln	Gly	Ala	Thr	Val	Gly	Leu	Ala	Pro	Val	Glu	Gly	Met
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			340					345					350		
Pro	Ile	Gly	Ala	Ala	Ala	Thr	Met	Ala	His	Glu	Ile	Gly	His	Ser	Leu
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Gly	Leu	Ser	His	Asp	Pro	Asp	Gly	Cys	Cys	Val	Glu	Ala	Ala	Ala	Glu
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Ser	Gly	Gly	Cys	Val	Met	Ala	Ala	Ala	Thr	Gly	His	Pro	Phe	Pro	Arg
385					390					395					400
Val	Phe	Ser	Ala	Cys	Ser	Arg	Arg	Gln	Leu	Arg	Ala	Phe	Phe	Arg	Lys
			405						410					415	
Gly	Gly	Gly	Ala	Cys	Leu	Ser	Asn	Ala	Pro	Asp	Pro	Gly	Leu	Pro	Val
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Asp	Cys	Gly	Pro	Gly	Gln	Glu	Cys	Arg	Asp	Leu	Cys	Cys	Phe	Ala	His
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new sequence listing.txt

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Leu	Ala	Trp	Cys	Cys	Tyr	Arg	Leu	Pro	Gly	Ala	His	Leu	Gln	Arg	Cys	
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Ser	Trp	Gly	Cys	Arg	Arg	Asp	Pro	Ala	Cys	Ser	Gly	Pro	Lys	Asp	Gly	
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new sequence listing.txt

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Asp

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new sequence listing.txt

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